DED

CARD PRINTERS

SECURITY ● MEMBERSHIP ● LOYALTY ● RETAIL

DED

CONTENTS

DED Limited

Formed in 1982, privately owned DED Limited is based in Lydd, on the South Coast of England. Over the past 20 years, the company has become a leader in the design, manufacture and distribution of:

- Specialist (Kiosk) Printers
- PoS (Point of Sale) Equipment
- CCD and Laser Barcode Scanners
- Magnetic and Smart Card Readers & Writers
- Cash Drawers, Pole Displays and Plastic Card Printers

- literally hundreds of products which cover a very broad spectrum of the Industrial, Retail and Leisure markets.

We employ a dedicated and enthusiastic team of engineers and graduates, manufacturing, marketing and distributing a co-ordinated range of products. Our purpose-built Headquarters on the Kent coast provide an ideal working environment for the Sales and Administration support functions, as well as incorporating state-of-the-art design facilities and a large demonstration room.

In addition to the Mill Road Headquarters building, nearby we have another well-equipped, purpose-built manufacturing premises with excellent facilities and a dedicated staff, which provides the flexibility needed for producing either large volumes or more limited quantities. An EMC-shielded Test Room enables us to test and self-certify product in accordance with the relevant European Directives.

Our extensive design facilities enable Customers to work closely with our highly trained staff to establish the essential design requirements of a specific application and agree the detailed specification, using the most advanced CAD techniques. All our resources are accessible to Customers in order to ensure an efficient and cost-effective design solution to their individual requirements.

Our Production and Stores facilities also ensure Customer's requirements are speedily and efficiently fulfilled. The system is entirely computer-controlled and allows both large quantities of product and single units to be manufactured simultaneously. The comprehensive manufacturing capabilities have been designed to handle everything from a small single unit - a printer interface - to the assembly of complete printers. The Stores department holds over 3000 items in stock at all times, all of which are batch controlled with individual serial numbers and barcodes to enable full product traceability and ensure items are used on a first-in, first-out principle.

We are accredited by NQA to the international ISO9001:2000 Quality Standard and a major Distributor for a number of world-class companies including Star Micronics, Zebra, Axiohm, Posiflex, Vibrant, Metrologic, Data Modul, Neuron and N5 Software. With these well established partnerships, we are strategically placed to meet the current demands and future requirements of all our Customers.

In the year 2000, the company commenced distribution of the market leading Posiflex and Star Asia product ranges, thereby considerably increasing the product offering to Customers.

We are also proud to have obtained Zebra Elite Partnership status and be an Axiohm Distributor for mechanisms and portable printers in the UK.

As part of the ISO9001:2000 certification, we employ networked computers to ensure Customer's orders are accurately and speedily processed. Thanks to the volume of stocks held and the efficiency of our internal systems, the vast majority of orders are despatched on the same day. The emphasis historically placed on quality by us has always worked to our advantage, resulting as it has in the winning of at least one new Customer per day over the past year. Many of these new Customers have come to us via recommendations from amongst our many satisfied existing Customers.

With a 100% inspection and test policy encompassing pre-manufacture inspection, in-process inspection, pre-test inspection and final inspection, customers can be sure that they are purchasing a highly reliable product. Testing is rigorously controlled and all data is collated and analysed using ISO9001 procedures.

An Introduction To Plastic Card Printing

Plastic cards have become part of everyone's life, from credit cards to driver's licences, membership cards to ID badges. Their size, portability and durability have made them the vehicle of choice for many applications.

Plastic card printers offer the ability to quickly and easily produce a custom card tailored to an application or to personalise a preprinted card on demand, at the point of issue. They are simple to integrate with image capture systems (digital cameras, scanners etc.) and most databases. Digitally printed plastic cards start with a blank plastic card that can be printed with any combination of graphics, text, photographs and barcodes. Additional electronic information can also be encoded, such as magnetic stripes and Smart Card chips.

How It Works

All plastic card printers feature the same basic printing operations; dye sublimation and/or thermal transfer printing. Both techniques involve a ribbon being heated as it passes under a thermal print head. Thermal transfer heats and transfers ink onto the plastic card surface whereas dye sublimation heats and undergoes a chemical change process that turns the ink into a gaseous state which then "dyes" the plastic card.

The ribbon used in colour dye sublimation printing is divided into separate colour panels; Yellow, Magenta, and Cyan. These are most commonly seen as part of a ribbon referred to as YMCKO which also includes a thermal transfer black designed for printing barcodes and a UV overlay to prevent the dye sublimation print from fading. The dye from the ribbon is applied to the plastic card as a multi-pass operation where the card passes under the printhead once for each of the ribbon panels. *(Colour Ribbon)*

| yellow | magenta | cyan | black | overlay | yellow | magenta | cyan | black | overlay |

All printers are also capable of printing in monochrome using a single colour ribbon. These ribbons are less expensive than full colour multi-panel ribbons and are available in Black, White, Silver, Gold, Red, Green and Blue. *(Monochrome Ribbon)*

| black |

Encoding Data Onto The Card

Information can also be stored on the card in a number of different formats:

Barcode - These are available in a wide variety of types (known as symbologies) and are ideal for storing a card or other number for time & attendance, asset tagging and data capture applications.

Magnetic Stripe - This is the most commonly used data storage format on a plastic card and can be encoded in both Hi-Co (more durable) and Lo-Co (less durable) formats. Selecting which type of magnetic stripe to adopt depends on how the card is to be used. The chart shows applications where magnetic stripes are used and which type is commonly used for that application.

Applications	Lo-Co	Hi-Co	Usage
Access Control		✓	Daily
Membership Cards	✓		Weekly/Monthly
Time and Attendance		✓	Daily
Debit/Credit/Loyalty Cards	✓		Weekly/Monthly

Smart Card - These can be used to store a much greater amount of information than a magnetic stripe. Most versions can be encoded using a Zebra printer and one of the specialist encoder modules from DED. Smart Cards are commonly used for cashless payment, loyalty and bank/medical record storage.

Proximity Cards – These can store a similar amount of information to a smart card but the card does not need to come into physical contact with the reader. A small loop aerial located in the card surface allows information to be transmitted between the card and reader from a small distance. Proximity cards are ideal for applications where a higher speed of transaction is required such as public transport passes.

Card Durability and Security

The chart below shows the typical levels of durability and security achieved using the various printers and/or ribbon combinations.

Material	Printer	Card Life	Durabilty	Security
Overlay Vanish	P110, P120, P205, P210, P310, P330, P420 Alto, Tempo, Avalon, Rio, Tango, Prima C30	Up to 2 years	Normal	None
Overlay Vanish with Built-In Bitmap	P110, P120, P205, P210, P310, P330, P420 Alto, Tempo, Avalon, Rio, Tango, Prima C30	Up to 2 years	Normal	Visual - Low
Overlay Vanish with Hologram	P310, P330, P420 Prima	Up to 2 years	Normal	Visual - High
Clear Overlaminate Patch	P520, P640 Prima & Laminator, Sicura	Up to 5 years (P520) 5 years Magicard Up to 7 years (P640)	High	None
Overlaminate Patch with Hologram	P520, P640 Prima & Laminator, Sicura	Up to 5 years (P520) 5 years Magicard Up to 7 years (P640)	High	Visual - High

Zebra Card Printers

The Zebra range of plastic card printers is the world's leading brand of on-demand plastic card printer. The range consists of a wide selection of models suitable for producing simple single colour business cards up to full colour, dual sided cards with holographic lamination. All printers are supplied complete with Windows 95/98/NT/2000 & XP Printer Drivers and all cables ready for connection to any software package.

Added features across the range include Hi/Lo-Co switchable magnetic stripe encoders and smart card contacts (except P100 & P200 Series). Most printers in the range are covered by a two year warranty including unlimited pass printhead cover proving just how reliable the range is. Whatever your application and size of business, there is a Zebra plastic card printer to suit you.

A Quick Guide To The Zebra Range

	Monochrome Printing	Colour Printing	Double Sided Printing	Card Thickness Capability	Magnetic Stripe Encoding	Smart Card Encoding	Proximity Card Encoding	Lamination
P110i	✓	✓		0.50 - 0.76mm	Trks 1 & 2			
P120i	✓	✓	✓	0.50 – 0.76mm	Trks 1 & 2			
P330i	✓	✓	✓	0.25 – 1.52mm	Trks 1, 2 & 3	✓	✓	
P430i	✓	✓	✓	0.25 – 1.52mm	Trks 1, 2 & 3	✓	✓	
P640i	✓	✓	✓	0.25 – 1.52mm	Trks 1, 2 & 3			✓

P110i Single Sided Value Colour Card Printer

The P110i's versatility and affordability make this printer the smart choice for first time buyers. From IDs to access control cards to gift cards, Zebra's P110i delivers big ideas at a small price.

Zebra P110i Advantages include:
Versatile: Print single-sided; Monochrome or full-color; Automatic card-feed or CardSenseTM single cardfeed.

Easy-to-Use: Small; Lightweight; Reliable; 16-Character LCD display; Blue touch-points; Translucent card-cover; Toolless printhead replacement.

Economical: Most-affordable single-side printer. Innovative Patent-Pending Technology: Compact design based on integrated card feeder; Easy to replace Load-N-GoTM ribbon cartridge with integrated card-cleaning roller.

Features Include:
- Dye sublimation/thermal transfer print technologies
- Load-N-GoTM ribbon cartridge with integrated card-cleaning roller
- RFID ribbon technology for automatic driver configuration
- Integrated card feeder
- Card feeder capacity: 100 cards (30 mil)
- Card output hopper capacity: 45 cards (30 mil)
- 30 seconds per card full-color single-sided (YMCKO)
- Automatic ribbon synchronisation

Use the P210i printer for:
- Personalised Loyalty & Gift Cards
- Membership Cards
- Photo ID Cards

Order Codes:
P110i Card Printer   - USB
P110i Card Printer   - Magnetic Encoder - USB

Options:
- Tracks 1 & 2 Hi/Lo Co magnetic stripe encoder

P120i Entry Level Dual Sided Colour Card Printer

The P120i is the latest addition to the Zebra Technologies range of plastic card printers available from DED. It is set to revolutionise the industry thanks to a host of new design features designed to make card printing easier, faster and more reliable than ever before

A new card input feeder doubles as a card flip-over unit which not only saves space but for the first time brings automatic dual sided card printing to entry level market.

The printer lid opens at the touch of a button to allow easy access for cleaning and ribbon changes, which in turn are made simple thanks to drop-in loading ribbon cassettes with integrated cleaning roller. The ribbons feature Zebra's new i series intelligence which have automatic driver setup & ribbon low notification.

The print speed is less than 35 seconds for card printed full colour front and back thanks to an all new mechanism and electronics. Interface is USB with Windows driver support for 2000 & XP. An optional magnetic stripe encoder unit is also available.

As streamlined design, compact footprint and easy to use operator LCD display complete the package to make P120i the only card to choose.

Features Include:
- Single or full colour printing
- Dual sided card printing
- USB Interface
- Less than 35 seconds per full colour card
- Windows 2000/XP Drivers
- Optional magnetic stripe encoding

Use the P120i printer for:
- Access Control Cards
- ID Cards
- Business Cards

Order Codes:
P120i Card Printer   - USB
P120i Card Printer   - Magnetic Encoder - USB

Options:
- Tracks 1 & 2 Hi/Lo Co magnetic stripe encoder

P330i Dual Sided Colour Card Printer with Dual Laminator

The next generation of the world's leading card printer, Zebra's P330 i is the most powerful and flexible card printer in its class. Easy to use, this single-sided card printer produces reliable and high performance printing at an affordable price.

With new advantages the Zebra P330i ID card printer is the newest of the reliable P300 series of Zebra ID card printers. The P330i ID card printer includes a new revolutionary angled card feeder design. It also features a powerful LCD display, the printhead brackets open twice as wide as the P310 ID card printer and it comes with a 16 MB memory as standard.

Optional features for the Zebra P330i include Ethernet connectivity and pass through contact and contactless smart chip encoding options.

Features Include:
- 25 Sec/Card Full Colour Print Speed
- USB or USB with built-in Ethernet
- 100 card capacity (220 high capacity feeder option)
- LCD for immediate printer status
- 16 MB image memory standard
- Bi-directional driver communication ●
- Windows drivers for 2000 and XP
- 300 dpi print resolution
- Colour dye sublimation or monochrome thermal transfer printing
- 25 seconds per card full colour single sided (YMCKO)
- 4 seconds per card for resin black (K)

Use the P330i printer for:
- Photo ID Cards
- Employee Badges
- Membership Cards
- Loyalty Cards

Order Codes:
P330i   - USB
P330i-E   - Ethernet & USB
P330iM   - Tracks 1,2 & 3 Hi-Co/Lo-Co Encoder, USB
P330iM-E   - Tracks 1,2 & 3 Hi-Co/Lo-Co Encoder, Ethernet & USB
P330iE   - Chip Card Contacts, USB
P330iE-E   - Chip Card Contacts, Ethernet & USB
P330iEM   - Tracks 1,2 & 3 Hi-Co/Lo-Co Encoder, Card Chip Contacts, USB
P330iEM-E   - Tracks 1,2 & 3 Hi-Co/Lo-Co Encoder, Card Chip Contacts, Ethernet & USB

Options:
- Built in Ethernet
- Smart card contact and contactless
- Magnetic encoder
- Cleaning supplies
- High capacity feeder (220)

P430i Dual Sided Colour Card Printer

The Zebra P430i is part of the latest generation of Zebra's most popular card printer family, with tens of thousands of printers installed worldwide.

Designed and built for demanding environments, the P430i delivers reliability and performance for high volume card production. Expansion options for networking and card encoding give the P430i the flexibility to meet your specific requirements.

Affordable and easy to use, the Zebra P430i is the new leader in dual-sided performance card printers.

Features Include:
- Dye sublimation/thermal transfer print technologies
- Easy-to-use operator control panel & LCD
- RFID ribbon technology for automatic driver configuration
- Print speed over 102 cards per hour, edge to edge (full colour-dual sided)
- 4Mb image memory
- 100 card input hopper capacity (0.76mm Cards)
- 100 card output hopper capacity (0.76mm Cards)
- Colour or Monochrome Printing on various thicknesses of Plastic Cards
- Self-cleaning cartridge system
- Automatic ribbon synchronisation

Use the P420i printer for:
- Access Control Cards
- Corporate ID Cards
- Personalisation of Bank Cards
- Secure ID Cards

Order Codes:
Contact sales

Options:
- 3 track Hi/Lo-Co switchable magnetic stripe encoder
- Smart card contact station
- USB, RS232C & Ethernet Options
- High Capacity Feeder (220 Cards)

P640i Dual Sided Colour Card Printer with Dual Laminator

For durable, secure cards of exceptional quality, the Zebra (formally Eltron) P640i is the best choice. The P640i's design provides reliability for continuous-print applications thanks to it dual roll laminating system which applies near edge linerless laminate patches to both sides of the card simultaneously, in a single pass. This means fast production of highly durable cards protected by laminate patches on both sides.

The patented P640i card transport mechanism allows highly accurate card positioning, resulting in high-quality colour printing and precision details that are difficult to copy. This level of accurate control also allows you to print "micro text" of less than 15 micron high and even "grey on grey" printing which to the naked eye looks like a plain block but under magnification is clear as printed text.

Other security features include custom design hologram laminates, UV printing ribbon, operator ID key option and ID Log software that creates a unique record of each card produced.

Cards printed on the Zebra P640i last between four and seven years and can withstand a variety of stresses, including abrasion, UV light exposure, temperature extremes, water, chemicals, bending and folding.

Features Include:
- Dye Sublimation print technology
- Micro card positioning card transport for enhanced print quality
- Covert text printing of less than
- 15micron high characters
- Grey on Grey hidden text printing
- Single pass dual sided wasteless lamination
- Flip-over unit for automatic printing of both card sides
- Easy to use operator control panel
- Rugged all metal case with viewing window
- High speed colour printing/laminating - 75 cards per hour (YMCK & 1.0mil lamination front & reverse)
- 150 card input hopper capacity (0.76mm Cards)
- Self cleaning ribbon system
- Automatic ribbon & laminate roll synchronisation

Use the P720 printer for:
- Access Control Cards
- Driver's Licences
- Government & National ID Cards

Order Codes:
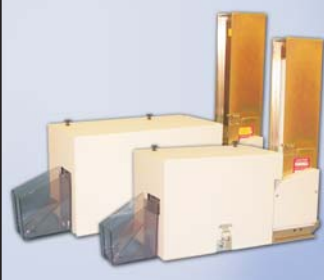P640i   - USB
P640i-E   - USB, Ethernet
P640iM   - Tracks 1,2 & 3 Hi-Co/Lo-Co Encoder, USB
P640iM-E   - Tracks 1,2 & 3 Hi-Co/Lo-Co Encoder, USB & Ethernet
P640iE   - Chip Card Contacts, USB
P640iE-E   - Chip Card Contacts, USB & Ethernet
P640iEM   - Tracks 1,2 & 3 Hi-Co/Lo-Co Encoder, Chip Card Contacts, USB
P640iEM-E   - Tracks 1,2 & 3 Hi-Co/Lo-Co Encoder, Chip Card Contacts, USB & Ethernet

Options:
- 3 track Hi/Lo-Co switchable magnetic stripe encoder
- ID Key security protection system
- 10/100 BASE T Ethernet Interface

D310 & D420 Large Capacity Card Feeder Kiosk Mounting Kits

The D310 & D420 large capacity card feeders have been developed for use with the Zebra P310 & P420 series of plastic card printers for applications where the standard card feeder capacity is not sufficient.

The feeders are available in kit form designed to allow retro fit to any P310 or P420 printer or as a complete, ready built printer/feeder package.

The feeder kit consists of all parts, cables and instructions to allow a printer to be quickly and easily upgraded. The standard printer cover and card feeder must be removed and a new feeder base/support plate and printer cover fitted. A new wiring loom takes power from the printer's main PCB to drive the feeder which is still controlled by the standard Zebra Windows driver for ease of integration.

The complete printer assemblies are supplied as a P310 monochrome, P310 colour or P420 colour printer complete with the 200 or 400 card feeder unit. Options on these units include a 3 track Hi/Lo-Co switchable magnetic encoder and Smart Card contacts.

For applications where the printer is being used inside a kiosk, we offer a set of full extension runners that allow the printer to be easily withdrawn from the kiosk for maintenance and consumable changes. The runners can be mounted to allow access from either the front or rear of the kiosk.

In addition to the standard "Out Of Cards" status returned to the host PC by the Windows driver, the feeder unit also has an adjustable "Card Low" status which can be monitored via a separate RS232C port. The card low level can be adjusted between 10 and 50 cards.

Features Include:
- Supplied in kit form or ready built
- 200 or 400 card capacity
- Card out and card low warnings
- Uses standard Eltron Windows drivers
- Simple to fit

Use a D310 & D420 modified printer for:
- Kiosk Integration
- Large Volume Bureau Printing
- Exhibition/Conference Badge Issuing
- Transport Ticket Issuing

Order Codes:
Codes are for kit only but can also be supplied as a complete printer – contact DED sales for more information.

D310-200-00 – 200 card capacity feeder kit for P310 Series (0.76mm cards)
D310-400-00 – 400 card capacity feeder kit for P310 Series (0.76mm cards)
D420-200-00 – 200 card capacity feeder kit for P420 Series (0.76mm cards)
D420-400-00 – 400 card capacity feeder kit for P420 Series (0.76mm cards)
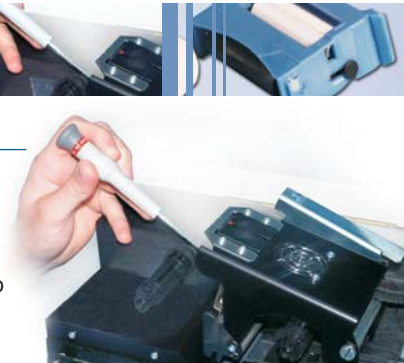
Options:
- Extending runner kit

Services

At DED we pride ourselves on offering the highest level of after-sales service, supporting you and your printer to ensure many years of reliable operation.

We offer a range of services from basic telephone support to on-site service. Something to suit every requirement and budget.

Technical Support

We offer free telephone and unlimited technical support and advice on all of our printers, software and accessories. Our Engineers are trained to the highest standards by Zebra and our other leading suppliers, enabling us to answer any questions that you might have on any of our products.

Software Support

The majority of software supplied by DED is covered by free lifetime telephone support with upgrades available free of charge from our website. We can also offer an on-line support service which allows us to dial into your PC (only with authorisation from the customer) via a phoneline to directly fix any software problems. This service requires the installation of an analogue or ISDN phoneline with internet access.

Return-To-Base Servicing

For non-urgent repairs or pre service contract inspections, we offer a return-to-base servicing facility. Simply return your printer to our Service Department who will carry out an inspection before providing you with an estimate of costs for the necessary work. Once approved, the work is carried out together with a full clean and check/adjustment of all printer settings.

Courier Swap-Out Service Contract

When a faster repair time is required we can offer a next working day, courier swap-out service contract. With this service we will send a loan printer (of the same or higher specification) to you and at the same time collect your faulty unit and return it to DED. We will carry out any repairs necessary and then return the printer to you by the same method. The contract covers all parts and labour (including the printhead in first two years only).

Printer & Software Rental

Do you ever find a time when demand for plastic cards cannot be met with your existing printing solution? If so then the Rental Service from DED is the answer. For a very low cost you can rent any printer in the Zebra range together with CardCreator software (if required) for any period from a single week upwards. All rental printers are supplied covered by a swap-out service contract for total peace of mind. Typical applications include University/College new year student registrations and exhibition/conference badging.

Card Printing Bureau Service

The card printing bureau service from DED is ideal if you require a low volume of cards or simply do not have time to produce them yourself. We can produce any number of cards in single or full colour, including barcode printing and magnetic stripe encoding. You can supply card artwork ready to use in electronic format or we can produce it ourselves to your design. Variable card data should ideally be supplied in electronic format. To ensure a fast & efficient service, our network of Resellers carries out most of our Bureau work, each working to the same high standards and at the same time offering a local service.

Technical Support Contact Details:

Service Contract, Rental & Bureau Service Quotations - 01797 320636
Email - card@ded.co.uk

Repair Queries & Bookings - 01797 322560
Technical Support Hotline - 01797 322590
Email - cardtech@ded.co.uk

Magicard Printers

The Magicard range of plastic card printers are ideal for any plastic card application. The range consists of a wide selection of models suitable for producing simple single colour business cards up to full colour dual sided re-transfer cards with holographic lamination. All printers are supplied complete with Windows 95/98/NT/ 2000 & XP Printer Drivers and all cables ready for connection to any software package. Added features across the range include Hi/Lo-Co switchable magnetic stripe encoder, smart card contacts or proximity card encoder

All Magicard printers are covered by two years UltraCoverplus (TM) warranty which includes no quibble printhead cover and a loan printer service. Please note that the Ultracoverplus (TM) warranty is only valid for printer sold into Europe.

	Monochrome Printing	Colour Printing	Double Sided Printing	Card Thickness Capability	Magnetic Stripe Encoding	Smart Card Encoding	Proximity Card Encoding	Lamination
Solo	✓			0.25 – 0.80mm				
Alto	✓	✓		0.51 – 1.02mm	Trks 1 & 2			
Tempo	✓	✓		0.51 – 1.02mm	Trks 1 & 2			
Avalon	✓	✓		0.51 – 1.02mm	Trks 1 & 2	✓	✓	
Rio 2	✓	✓		0.38 – 1.60mm	Trks 1, 2 & 3	✓	✓	
Tango 2	✓	✓	✓	0.38 – 1.60mm	Trks 1, 2 & 3	✓	✓	
Prima	✓	✓	✓ (note 1)	0.25 – 2.40mm	Trks 1, 2 & 3	✓	✓	✓ (note 2)
Sicura				0.76 – 1.60mm				✓

Notes: 1 – Dual sided printing available on Prima when optional flip-over module added, 2 – Lamination available on Prima when optional laminator module added

Solo Low Cost Hand Fed Monochrome Card Printer

The Solo is a low cost monochrome hand fed card printer capable of producing monochrome single side plastic cards at a high quality 300dpi resolution. Print speed is 6 seconds per card when printing using the thermal transfer method and 7 seconds per card when using direct thermal cards. This time excludes the data download time from the PC.

The Solo is also capable of reprinting thermochromic cards upto 500 times. All Magicard printers are covered by two years UltraCoverplus (TM) warranty which includes no quibble printhead cover and a loan printer service. Please note that the Ultracoverplus (TM) warranty is only valid for printer sold into Europe.

Each Solo is supplied complete with a black thermal transfer ribbon (500 image), 20 plain white cards, webcam, basic card design software and Windows 98/ME/NT/2000/XP drivers.

Features Include:
- High Speed Monochrome Printing
- 6 Seconds Per Card
- Hand Fed Operation
- RS232C Serial Interface
- Low Maintenance
- Windows 98/ME/NT2000/XP printer drivers
- Simple To Use

Use the Solo for:
- Personalization Of Pre-Printed Cards
- Monochrome Membership Cards

Order Codes:
Solo   - RS232C Serial. Basic card design software, webcam, black ribbon and pack of 20 cards

Alto Low Cost Hand Fed Colour Card Printer

The Alto is a low cost colour hand fed card printer capable of producing monochrome or colour single side plastic cards at a high quality 300dpi resolution. Print speed is 6 seconds per card (monochrome) or 30 seconds per card (full colour). This time excludes the data download time from the PC. Operation is simple thanks to "drop-in" loading ribbon cassette with RFID auto set-up and cards which are supplied in sealed 50 card dispensers. This not only ensures that the cards are easy to load but also keeps them protected and clean.

A HoloKote anti forgery protection overlay can be printed using an optional key card available from DED. This card can be programmed with any line art or text based logo which is automatically "frosted" into the overlay of each card when the key is loaded into the Alto.

All Magicard printers are covered by two years UltraCoverplus (TM) warranty which includes no quibble printhead cover and a loan printer service. Please note that the Ultracoverplus (TM) warranty is only valid for printer sold into Europe. Each printer is supplied with Windows 98/ ME/NT/2000/XP drivers, all cables and a starter cleaning kit.

Features Include:
- High Speed Monochrome or Colour Printing
- 30 Seconds Per Card Full Colour
- Hand Fed Operation
- Drop-In Loading Ribbon Cassette
- USB Interface
- Low Maintenance
- Windows 98/ME/NT/2000/XP printer drivers
- Simple To Use

Use the Alto for:
- Membership Cards
- Loyalty Cards
- Photo ID Cards

Order Codes:
Alto   - USB
AltoM   - Tracks 1 & 2 Magnetic Encoder, USB

Options:
- Tracks 1 & 2 Magnetic Stripe Encoder
- Holokote Security Overlay Key Card

Magicard Tempo Entry Level ID Card Printer

Based on the popular Magicard Alto, the new Magicard Tempo is a simple to use entry level dye-sublimation plastic card printer at a great price. The Tempo features the famous HoloKote card watermark and HoloPatch visible security patch available only with Magicard plastic card printers. With incredibly easy to use drop-in dye-film ribbon and hand fed card loading, the Magicard Tempo is supplied with all the necessary Windows drivers to run the printer, and a USB connection for ease of integration.

Compact and light, the Magicard Tempo has a tiny footprint of only 8 square inches, features edge to edge full colour printing, and is capable of printing on all quality PVC cards whether blank or pre-printed.

Accessories available for the Magicard Tempo include high quality drop in colour and monochrome ribbons which feature a higher capacity than the Magicard Alto. These simple drop-in ribbons come in 250 image colour, and 500 image monochrome (black, red, blue, green, gold, silver or white). Blank plastic cards for the Tempo are available in plain, magnetic stripe and HoloPatch, printing a full colour card in 40 seconds, monochrome in only 6 seconds.

Recognised as being the best warranty in the ID card printer industry, the Magicard Tempo has a 2 year no quibble return to base warranty. This warranty includes the free replacement of any printhead, whatever the reason for failure.

Features Include:
- Dye sublimation/thermal transfer print technologies
- Drop-in loading ribbon cassette
- Single card hand feed operation
- RFID ribbon technology for automatic driver configuration
- Print speed 120 cards per hour, full colour, edge to edge
- Automatic ribbon synchronisation
- USB Interface
- Windows 98/ME/NT2000/XP printer drivers
- 2 year Ultracoverplus (TM) warranty
- Optional Holokote (TM) security key

Use the Tempo for:
- Photo ID Cards
- Employee Badges
- Membership Cards

Order Codes:
Please Contact Card Sales

Magicard Avalon Entry Level ID Card Printer

Magicard Avalon - entry level ID card printer is ideal for printing ID cards, membership cards, loyalty cards, security cards and many more plastic card applications.

If you want to print quality id cards, again and again and again, then the Magicard Avalon is for you.

The Avalon features our patented Holokote & Holopatch card security which protects your cards against unauthorised copying, 100 card capacity input hopper for batch printing, and competitively priced high-quality color and monochrome ribbons.

Features Include:
- Edge to edge, full colour printing
- Mag stripe encoding
- HoloKote and HoloPatch to protect agaisnt unathourised copying
- Low Maintenance Simple to use
- 2 years Ultracoverplus (TM) warranty

Use the Avalon for:
- Access Control Cards
- ID Cards
- Asset Tags

Order Codes:
Avalon 100 - USB
Avalon 105 - Tracks1,2 & 3 Hi-Co/Lo-Co Encoder, USB

Rio 2 Single Sided Colour Card Printer

The Rio 2 colour printer range are capable of producing both single colour (monochrome thermal transfer) and full colour (dye sublimation) edge to edge plastic cards at a high quality 300dpi resolution.

Speed is a very high 180 cards per hour (full colour) and over 1000 per hour (monochrome) including the data download time from the PC.

Options include a 3 track Hi/Lo-Co switchable magnetic encoder, smart card contacts, Mifare (ISO 14443A or B) contactless smart card encoder and the Sicura add-on laminator.

For added security a Holokote (TM) anti-forgery key is available which inserted into the printer produces a daylight visible security logo (Option of 2 patterns) across the entire face of the card. When used in conjunction with the optional HoloPatch (TM) card, the logo is clearly visible even in poor light. This is a highly secure system as keys are only available from the manufacturer.

Features Include:
- 180 cards/hour print speed, full colour edge to edge
- Automatic ribbon synchronisation
- 100 card input hopper capacity (0.76mm Cards)
- 50 card output hopper capacity (0.76mm Cards)
- Centronics Parallel & USB interfaces
- Windows 98/ME/NT2000/XP printer drivers
- 2 years Ultracoverplus (TM) warranty

Use the Rio 2 for:
- Photo ID Cards
- Employee Badges
- Membership Cards
- Loyalty Cards
- Discount Cards

Order Codes:
Rio2   - Centronics & USB
Rio2M   - Tracks 1, 2 & 3 Hi-Co/Lo-Co Encoder, Centronics & USB
Rio2S   - ISO Chip Card Contacts, Centronics & USB
Rio2MS   - ISO Chip Card Contacts, Tracks 1, 2 & 3 Hi-Co/Lo-Co Encoder, Centronics & USB
Rio2Mifare - Mifare Encoder, Centronics & USB

Options:
- 3 track Hi/Lo-Co switchable magnetic stripe encoder
- Smart card contact station
- Mifare encoder
- Holokote key

Tango 2 Dual Sided Colour Card Printer

The Tango 2 colour printer range of dual sided printers are capable of producing both single colour (monochrome thermal transfer) and full colour (dye sublimation) edge to edge plastic cards printed on both sides in a single operation at a high quality 300dpi resolution.

Speed is a very high 144 cards per hour (full colour front, black reverse) and 102 per hour (full colour front and reverse) including the data download time from the PC. A reject-card hopper is fitted for encoding applications. Options include a 3 track Hi/Lo-Co switchable magnetic encoder, smart card contacts, Mifare (ISO 14443A or B) contactless smart card encoder and the Sicura add-on laminator.

For added security a Holokote (TM) anti-forgery key is available which inserted into the printer produces a daylight visible security logo (Option of 2 patterns) across the entire face of the card. When used in conjunction with the optional HoloPatch (TM) card, the logo is clearly visible even in poor light. This is a highly secure system as keys are only available from the manufacturer.

Features Include:
- 144 cards/hour print speed, full colour front, black reverse, edge to edge
- Automatic ribbon synchronisation
- 100 card input hopper capacity (0.76mm Cards)
- 50 card output hopper capacity (0.76mm Cards)
- Centronics Parallel & USB interfaces
- Windows 98/ME/NT2000/XP printer drivers
- 2 years Ultracoverplus (TM) warranty

Use the Tango 2 for:
- Photo ID Cards
- Employee Badges
- Membership Cards
- Loyalty Cards
- Discount Cards

Order Codes:
Tango 2Flip   - Centronics & USB
Tango 2FlipM   - Tracks 1, 2 & 3 Hi-Co/Lo-Co Encoder, Centronics & USB
Tango 2FlipS   - ISO Chip Card Contacts, Centronics & USB
Tango 2FlipMS - ISO Chip Card Contacts, Tracks 1, 2 & 3 Hi-Co/Lo-Co Encoder, Centronics & USB
Tango2Mifare   - Mifare Encoder, Centronics & USB

Options:
- 3 track Hi/Lo-Co switchable magnetic stripe encoder
- Smart card contact station
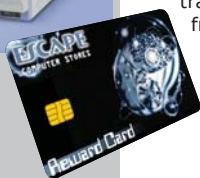- Mifare encoder
- Holokote key

Prima 2e Dual Sided Re-Transfer Colour Card Printer

The Magicard Prima printer has been significantly updated to enhance its position as the best reverse-transfer printer in the world. The new Magicard Prima 2e includes many new features. Reverse-transfer printing gives the finest print quality, and is especially good for printing on contactless or dual-interface cards due to it's ability to print on all sorts of surfaces.

Now even better, the Magicard Prima 2e is your ideal choice for high-quality print images and where a durable card is required.
The Magicard Prima 2e prints on the reverse of a transparent PVC re-transfer film which is then laminated onto the face of a card made from PVC, PET, ABS or PVH. The quality of the finished card is similar to that achieved by the off-set litho printing process, but with the advantage that every card can be different.

Features Include:
- New Graphical Driver with auto ribbon detection, auto-cleaning prompts, and ribbon status level
- USB 2.0 now standard
- Wide range of encoding options to be made available -Philips Mifare, Desfire, Mifare ProX and i.code; HID iClass; Legic; Texas TagIT; ST; Infineon; Atmel; KSW
- External LaserCard encoding unit option
- Batch printing with up to 7 printers (Prima 2e Network version)
- In-line Lamination options
- Peel-off ribbon
- Ethernet as an option.

Use the Prima for:
- Photo ID Cards
- Employee Badges
- Membership Cards
- Loyalty Cards
- Discount Cards

Order Codes:
Prima/001   - SCSI Interface (Requires SCSI Interface Card or USB Adaptor)
Prima/002   - Tracks 1, 2 & 3 Hi-Co/Lo-Co Encoder, SCSI Interface (Requires SCSI Interface Card or USB Adaptor)

Options:
- 3 track Hi/Lo-Co switchable magnetic stripe encoder
- Smart card contact station
- Mifare encoder station

Fargo Printers

The Fargo plastic ID card printer range offers a comprehensive selection of card printers and card printing methods.

Currently available are the Persona CardJet C7 inkjet plastic card printer powered by a dependable HP engine and the C30 plastic card printer which features optional dual sided and card encoding modules.

Both printers are suitable for producing cards for membership, loyalty, gift, discount, security and many more applications. All Fargo printers are supplied complete with Windows drivers, cables ready for connection to any software package and come with a 2 year return to base warranty.

Fargo C30 Colour ID Card Printer

Persona by Fargo is all about simple, reliable and affordable ID card printing. Persona ID Card Printers are designed for everyone who wants to make great-looking plastic ID cards, but doesn't need cards with high-security features. Persona delivers sharp, colorful, durable plastic ID cards for hundreds of applications, such as company and school IDs, access cards, and membership and customer loyalty cards.

The Persona C30's easy-loading, all-in-one ribbon cartridge saves time and eliminates the mess and expense of torn, wasted ribbons. Simply open the front panel, slide in the ribbon cartridge, close the panel, and you're done. There's nothing to feed, nothing to fumble with, nothing to tear. And since the card cleaning roller is integrated into the ribbon cartridge, you automatically change the cleaning roller every time you change the ribbon.

Features Include:
- Photo-quality dye-sublimation/ Resin thermal transfer
- Up to 16.7 million colors
- 100 card capacity
- Entry-level photo ID software included
- Edge-to-edge printing on CR-80 cards
- Single sided printing
- 2MB Ram
- USB 1.1 (USB 2.0compatible)
- 30 card output hopper
- 203mm x 457mm x 356mm (HxWxD)
- Windows 98SE/ME/2000/XP drivers
- Weight 8.8kg

Use a Fargo C30 Colour ID Card Printer:
- Membership Cards
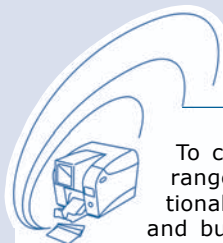- ID Cards
- Gift Cards
- Loyalty Cards

Order Codes:
C30-44000   - USB, Single Side
C30-44002   - USB, Dual Side

Options:
- Field upgradable 3 track Hi/Lo-Co encoder module

Speciality Printers

To compliment DED's range of standard plastic card printers, we also offer a wide range of specialist technology printers. These products are designed for conventional plastic card printer is not ideal such as visitor passes, transportation tickets and business cards.

The technologies available from DED include single use thermal sensitive cardboard cards, high resolution printing inkjet cards and rewritable cards.

TCP300 Thermochromic Rewritable Visual Card System

The TCP300 is a visual card reader/writer capable of erasing and re-printing the information on the front of a special 0.25mm "Leuco" cards in as little as 3 seconds, up to a maximum of 500 times.

It is also capable of printing single use cardboard tickets. Printing high contrast black or blue text at up to 203 dpi on any colour background, the TCP300 is ideal for environments where cards need to be reused again and again, such as loyalty, membership & appointment cards or even visitor badges.

The TCP300 is available with a USB or RS232C Serial interface and comes with Windows 2000 and XP drivers. With a footprint of just 119mm wide x 270mm deep x 132.5mm height, this re-writable card printer even has a maintenance indicator to warn the operator of the optimum time to run a head cleaning cycle in order to obtain the highest resolution card printouts.

Features Include:
- Thermochromic visual/magnetic card reader/writer
- Uses either 0.20mm Ricoh or 0.30mm Leuco cards
- Large re-writable graphics area of 40mm x 58mm
- Cards can be re-written up to 500 times
- 3 track ISO standard magnetic encoding on to hidden stripe
- USB Interface
- 230VAC mains PSU

Use the TCP300 printers for:
- Loyalty Cards
- Membership Cards
- Appointment Cards
- Temporary Visitor Passes
- Re-usable Tickets

Order Codes:

TCP300ZD-230	- Tracks 1,2 & 3 Encoder, 0.25mm Card, USB, Star White Case
TCP300ZD-230-GRY	- Tracks 1,2 & 3 Encoder, 0.25mm Card, USB, Charcoal Grey Case

star MICRONICS

TCP400 Thermal Visual Card Reader/Re-Writer System

The latest addition to the TCP series from Star Micronics, this new printer can take plastic cards of 0.76mm in thickness and erase and re-write the information on them in as little as 4 seconds, up to a maximum of 500 times. Printing high contrast black or blue text at up to 203 dpi on any colour background, the TCP400 is ideal for environments where cards need to be reused again and again, such as temporary access control and visitor management applications as well as loyalty, membership and appointment cards.

The TCP400 is fitted with both USB and RS232C Serial interfaces and comes with Windows 2000 and XP drivers. With a footprint of just 119mm wide x 270mm deep x 132.5mm height, this re-writable card printer even has a maintenance indicator to warn the operator of the optimum time to run a head cleaning cycle in order to obtain the highest resolution card printouts.

Features Include:
- Uses 0.76mm thick thermochromic cards
- Erases and re-prints each card approx 500 times
- Print area of 40mm x 66.8mm
- High speed throughput of 4 seconds per card
- USB & Serial RS232C interfaces (Ethernet option)
- Cleaning indicator
- Compact design 119mm (w) x 270mm (d) x 132.5mm (h)
- Weight 2.5Kg
- 3 track switchable (300, 650 or 2750 Oersted) magnetic stripe encoder
- 300,000 card cycles MTBF Mifare proximity card option available

Use the TCP400 printers for:
- Loyalty Cards
- Membership Cards
- Appointment Cards
- Temporary Visitor Passes
- Re-usable Tickets

Order Codes:

542-666	- TCP410ZUN-230 - Visual Card Printer with Magnetic Encoder, USB
542-667	- TCP410ZUN-230-GRY - Visual Card Printer with Magnetic Encoder, USB, Charcoal Grey Case

star MICRONICS

Axiohm PCPR Thermal Card Printer

This compact thermal printer offers a cost effective solution for producing single use 'throw-away' cardboard cards. With a print speed of up to 80mm/s and the ability to print single or double length ISO format cards, the PCPR is ideally suited to applications such as visitor badges, loyalty cards, phone cards and appointment cards where plain black printing is required.

It's compact, yet stylish, design combined with manual front loading allows the PCPR to fit right on any reception desk or point of information. A print resolution of 8 dots per mm allows the printing of crisp text, graphics and barcodes. Available with Windows drivers for 98/2000/XP and capable of emulating the EPOS industry standard ESC/POS commands via its USB or RS232 interface, the PCPR thermal card printer offers unrivalled versatility at an affordable price.

Features Include:
- Up to 80mm/s printing speed
- Print width of 48mm
- Resolution 8dots/mm
- Barcode Types: UPC-A, UPC-E, EAN 13, EAN 8, Code 39, 12/5, Code 128
- Mechanical Reliabilty: 50000 single cards & 25000 double iso cards
- Weight 600g
- Windows XP/2000/98 Supported
- Dimensions 230(W) x 115(D) x 95(H)

Use PCPR for:
- Phone Cards Systems
- Loyalty Cards
- Visitor Badges

Order Codes:
PCPR2000 - RS232C & USB Interface, ISO Card Size Printing.

Axiohm

Card Equipment

To get the most from your plastic card printer, it is important to have the highest quality software. This is why DED has chosen to work closely with N5 Software, a world leader in the development of plastic card design software, to offer two very powerful yet user-friendly software packages, CardCreator and DeskFive.

Alternatively, you can print to the plastic card printers using the Windows 95/98/NT/2000 & XP drivers supplied with each printer from an existing membership, security, design or database application.

CardMaker II Manual Embosser

The CardMaker II is one of the smallest manual desktop embossers available on the market. Operation is simple, thanks to the large character selection drum and emboss handle. The current embossing position is shown at all times on a "dummy" card to ensure correct alignment. Up to 5 lines can be embossed at either 1/7" or 1/10" emboss pitch.

The standard drum features 55 characters including numeric in two font sizes and the full alphabet in one size. The drum can be expanded up to 100 characters should further characters or fonts be required. The CardMaker II is ideal for any membership, loyalty or discount card.

Features Include:
- Simple operation
- Accepts CR80 ISO card
- 5 emboss lines (ABA standard)
- A-Z, 0-9 large numeric, 0-9 small numeric, :-/$.,& characters
- 55 character drum capacity (Expandable up to 100 characters)
- 1/7" and 1/10" emboss pitch
- Card position guide

Use the CardMakerII for:
- Membership Cards
- Loyalty Cards
- Discount Cards

Order Codes:
Contact Sales

Camera and Capture Devices

Photographs and signatures are both very often required on cards for identification and security purposes. We can offer a range of image capture devices designed to work with both the CardCreator and DeskFive software packages.

These range from a low cost webcam which is very simple to install & operate, to a video camera & capture card which produces a higher quality image. For applications requiring the very highest quality or portability we can offer a range of digital cameras to suit individual needs.

A signature tablet can be provided for use with CardCreator which allows the digital image of a signature to be captured and printed onto the card - much more secure and professional looking than using a pen.

For use with the DeskFive visitor registration software we offer a CardScan business card scanner. This unit greatly reduces the time spent registering visitors by automatically entering all details from their business card using OCR (Optical Character Recognition). It also stores a scan of the card in the software for future reference.

Features Include:
- Low cost web cameras
- High quality video cameras
- Digital cameras
- Tripods
- Signature tablets
- Video capture cards
- Business card scanners

Card Printer Software

To get the most from your plastic card printer, it is important to have the highest quality software. This is why DED has chosen to work closely with N5 Software, a world leader in the development of plastic card design software, to offer two very powerful yet user-friendly software packages, CardFive and DeskFive.

Alternatively, you can print to the plastic card printers using the Windows 95/98/NT/2000 & XP drivers supplied with each printer from an existing membership, security, design or database application.

CardFive

CardFive is a card design and database software, designed for use with any plastic card or page printer, Cards can be quickly and easily designed on the WYSIWYG layout screen including lines, boxes, images, text & barcodes, all of which can be linked to variable data sources and databases via ODBC (depending on version). Magnetic stripes and Smart Cards can also be set up and processed in the same way. The simple-to-use database features query, find and report printing facilities together with signature & photo capture from file or via Twain and Video For Windows.

All editions of CardFive are protected by a Smart Card-based security system that prevents the software being used if the card is not in the reader. For added security, the Professional edition also features user-definable password protection. Designed for Windows 95/98/NT/2000 & XP, CardFive delivers all the features & power you need to handle your card printing requirements.

Features Include:
- Designed for Windows 95/98/NT/2000/XP
- Four editions to suit different applications
- RS232C or USB Smart Card security
- Print to any Windows printer
- Twain & VFW photo capture
- Database connectivity

Optional Hardware/Software Add-Ons:

VFW/TWAIN Camera
(Page 14)

FaceSnap Photo Cropping Tool
(Page 16)

Wacom Signature Tablet
(Page 14)

Bioscrypt Fingerprint Scanner
(Page 18)

Mifare/HID Proximity Card Encoder
(Page 18)

	Classic	Lite plus	Premier	Professional	Elite
Setup programs on CD	✓	✓	✓	✓	✓
Windows 95/98/2000/NT/XP	✓	✓	✓	✓	✓
Key Five (SmartCard) software protection	✓	✓	✓	✓	✓
Printed and On-Line Manual	✓	✓	✓	✓	✓
Multi-lingual versions	✓	✓	✓	✓	✓
Magnetic Encoding	✓	✓	✓	✓	✓
Contact Smart Card Encoding	✓	✓	✓	✓	✓
Contactless Smart Card Encoding					✓
WYSIWYG Multi-Document interface	✓	✓	✓	✓	✓
Barcode & PDF 417	✓	✓	✓	✓	✓
Variable objects - system source	✓	✓	✓	✓	✓
Variable objects - database source		✓	✓	✓	✓
Import image from file	✓	✓	✓	✓	✓
Windows & private clipboard	✓	✓	✓	✓	✓
Built-in image tools	✓	✓	✓	✓	✓
Twain image acquistion interface	✓	✓	✓	✓	✓
Video for Windows image acquistion interface				✓	✓
Clipart	✓	✓	✓	✓	✓
User definable security logins				✓	✓
Biometrics devices supported					✓
Photo on a database record			✓	✓	✓
CSV database connection		✓	✓	✓	✓
Internal database			✓	✓	✓
External database (ODBC)				✓	✓
Database query			✓	✓	✓
Database credit/edit			✓	✓	✓
Database report				✓	✓
Front & back printing management	✓	✓	✓	✓	✓
DCL's and Windows driver printing	✓	✓	✓	✓	✓
Overlay management	✓	✓	✓	✓	✓
Batch printing	✓	✓	✓	✓	✓
Batch overlay feature	✓	✓	✓	✓	✓
Autoprint					✓
Net licences			✓	✓	✓
Free upgrade from our website	✓	✓	✓	✓	✓
FaceSnap Plug-in (option)	✓	✓	✓	✓	✓

CardExchange - Professional Card and Print Manager

Issuing ID and Security cards can now be done in seconds thanks to the new CardExchange card management software from DED Limited.

Based upon the highly successful CardFive from NFive software, CardExchange has been specifically created to simplify the process of card issuance and database management. The entire screen layout can be defined with easily accessible menus and buttons for the features and functions which each user requires. These can include fully customised reports and filters for selecting groups of records, data entry fields for the information required for each card and even easy access to specific printer(s) and camera(s). With the click of a mouse you can add information to the database, take a picture and send the information to print immediately - it really is that simple.

CardExchange keeps track of how many times a card has been printed and when. This information can then be stored in the database or printed on the card. It is even possible to track how many cards have been printed per person - making it easier to monitor and control card production. The CardExchange base edition includes connection to an external MS Access database via OleDB. For connection to larger and more powerful databases, modules for MS SQL 2000 and Oracle are available. Also available is a contactless encoding module to enable the production of Proximity (Mifare or HID) cards.

INTERFACE
A straightforward user-friendly user interface - four clicking interface. Easy coupling of multiple card designs - easy to use card definition wizard. Easy coupling with mapping window - connecting card objects. Global counter - store and view counter. Design new and existing cards - CardFive professional card design software. Supported languages - English, German, Dutch , French.

DATABASE
Powerful Microsoft-Access database connectivity - local or network. Making connection to serveral databases without limitations - local of network. Connecting to all CardFive objects - CardFive card objects. Intuitive representation of available data - view data in dockable window. Straightforward and intuitive editing, addition and deleting of database data - direct on database. Powerful and extensive functionality to filter and search in the available data - Three level filter functionality. Manual data entry - easy personalise cards without a database connection.

IMAGING
Twain image acquisition - Scanner, digital camera or any other Twain device. Video for Windows - Real time video on a card. Straigtforward functionality to take, edit, store, import and export photos - Storage either in the database or as bitmap or jpeg image, locally or on a network. Extensive photo studio for editing photos - Image tools.

PRINTING
Printing cards using either Windows or DCL printer drivers - indepented of the printer used. Advanced printer functionality - couple any number of Windows printers. Printing on both sides - indepented of card settings. Multiple printing - printing of selections of batches.

ENCODING
Magnetic encoding - Encode track 1, 2 and 3.

SIMPLE CARD MANAGEMENT
Store printdate in database - also preview on card as text item. Keep track of the number of printed cards for each specific card holder - easier manage card production Overview of the number of cards printed for each loaded card design - printable

Features Include:
- Multiple card design coupling
- Powerful high-speed database connections
- Advanced filter functionality
- Simple card management
- User-friendly interface

Additional Modules:
- CM 1010 - Microsoft SQL-Server database connectivty - using direct server communication, no ODBC.
- CM 1020 - Oracle database connectivity - using direct server communications, no ODBC.

Encoding:
- CM 6010 - Contactless encoding - includes upgrade to CardFive Elite
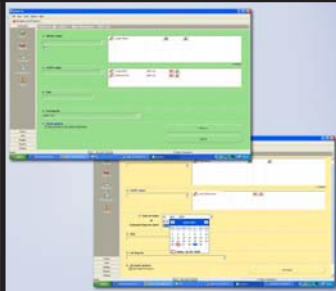
Applications:
- Schools
- Colleges
- Club Memberships
- Security

Order Codes:
CE3000   - Card Exchange Base Edition

DeskFive - Electronic Visitor Management System

DeskFive is a very powerful, yet simple to operate visitor management system. It combines a host of powerful features to manage and track visitors and the employees they are visiting at your site. The whole check-in procedure can be made simple by the use of a CardScan business card scanner (available separately). Simply insert a business card into the scanner and the check-in process is started. The card is scanned, a copy of it stored and all fields updated using Optical Character Recognition. A photograph of the visitor can also be captured and stored on their record and/or printed onto their visitor badge.

DeskFive holds a database of staff so that the visitor(s) can be quickly and easily assigned to the staff member(s) they are visiting. This can be linked to an existing database via ODBC. Once the staff member is selected, site route instructions can be printed for the visitor and automatic email notification sent advising of the visitor's arrival.

Reports on visitor and staff locations, on/off site report and top visitors/staff can be easily printed. An emergency on-site report can be produced very quickly from the main screen showing all current visitors on-site at that moment - a very important feature should you have to evacuate the building.

More than one printer can be defined for the printing of badges, maps/instructions and reports enabling you to use, for example, an A4 page printer for reports and a plastic card printer for badges. DeskFive can also assign a badge number, allowing you to use pre-printed badges instead of printing them.

The Star TSP800 thermal badge/report printer (available separately) is ideal for use with DeskFive as it features a compact footprint, 112mm wide paper width, 150mm per second print speed and has unique Windows printer drivers, allowing it to be used to produce both badges and perfectly readable, scaled down A4 reports all from the same paper roll.

Designed for Windows 95/98/NT/2000 & XP, DeskFive gives you the ability to simply and securely manage and control your visitors.

Features Include:
- Intelligent typing aid
- Built-in interface for CardScan business card scanner
- Smart card based software protection system
- Photo acquisition (Twain & Video For Windows Compliant)
- Real time visitor tracking
- Easy-to-analyse history reports
- Emergency evacuation report
- Automatic E-mail notification of visitor arrival
- Automatic printing of guidance route instructions
- Card, Label or Page printer output via Windows drivers
- Network compatible
- ODBC compliant database
- Designed for Windows 95/98/NT/2000 & XP

Options:
- FaceSnap automatic photo cropping plug-in

Face Snap - Automatic Photo Cropping Plug-In®

FaceSnap is a new plug-in upgrade for both the CardFive and DeskFive software packages. It is designed to identify a face on a picture & automatically crop it to a uniform size, regardless of the height of the subject, or how far away or near they are in relation to the camera.

The upgrade works by artificial intelligence; it recognises the face, locates it and cuts the required area of the face and 10% of the surrounding area in order to produce a perfect identification photo - every time. FaceSnap can also adjust colours, contrast and brightness in order to maintain a quality database of images, together with a transparent mode, which removes all background from around the face.

Features Include:
- Plug-In for CardFive & DeskFive
- Automatically crops photo from any background
- Adjust colours, contrast & brightness
- Transparent background mode
- Designed for Windows 95/98/NT/2000 & XP
- Supplied as RLL (remote licence loader) email upgrade

Other Software Solutions

In addition to our standard software packages, we also work closely with a number of System Integrators, each specialists in their own market, to offer a wide variety of software solutions.

We are therefore able to recommend solution providers for applications including, but not limited to, Access Control, Time and Attendance, Visitor Management, Loyalty, Membership, EPOS, Leisure Management and more.
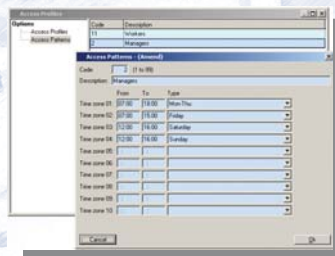
Our database of Partners is constantly expanding, so please contact us for details of how to become a DED Reseller/Solution Partner or to find the details of a provider near to you.

Visitor Managment   Retail/Hospitality   Access Control   Membership

Consumables

A wide range of consumables and accessories are available for the complete range of printers. These include plain, magnetic, Smart and proximity cards; monochrome and full colour ribbons; plain and hologram overlays/ laminates plus print foil for tippers in a variety of sizes and colours.

We also supply a range of cleaning materials which help to maintain the various parts of the printer and ensure the highest reliability and print quality.

Ribbons

We offer the complete range of genuine "True Colours" ribbons to suit the Zebra, NBS & CIM range of plastic card printers together with the complete range of Magicard ribbons. These include monochrome thermal transfer ribbons in a variety of colours together with 3, 4, 5 and 6 panel full colour dye sublimation ribbons. A range of overlay ribbons & laminate patches are available offering added protection and durability to a finished card, these are available in both plain and hologram versions. As well as the standard hologram designs, we offer a custom design and production service allowing the integration of any logo or design into an overlay ribbon or laminate. A scratch-off ribbon ideal for promotional cards is also available.

Products
- Full colour ribbons
- Monochrome ribbons
- Overlay ribbons
- Laminate ribbons
- Hologram ribbons
- Scratch-off Ribbons

Plastic Cards

ISO standard plastic cards in a wide variety of formats and colours can be supplied by DED. Plastic cards are ideal for membership, loyalty and ID applications, plus they can be used for business cards, luggage tags and Checkout Operator cards.

We offer both Hi-Co and Lo-Co magnetic stripe cards and Smart Cards in a choice of colours with the option of a signature panel in either a standard or custom size and position. Plain cards are available in a choice of colours and thicknesses from 0.20mm to 0.76mm.

We also offer self-adhesive cards, ideal to print and use with proximity cards.

Re-writable cards for the Star TCP Visual Card systems in a variety of colours and with magnetic stripe or Smart Card chip can also be supplied. A custom printing service for all card types is available, offering standard print and special finishes including holograms and scratch-off panels, ideal for promotions.

Products
- Hi & Lo-Co magnetic stripe cards
- Smart cards
- Signature panel cards
- Star MCP & TCP re-writable cards
- Self-adhesive cards
- Wide selection of colours
- Custom printing service
- Mifare cards

Cleaning Accessories

To ensure that your printer remains in first-class condition, it is important to maintain and clean it regularly. DED offer a range of cleaning materials including pre-impregnated cards to clean the rollers and card paths, pre-impregnated swabs to clean the printhead plus self-adhesive cleaning rollers designed to remove dirt and dust from cards as they enter the printer.

All these materials are available on their own or can be supplied in complete kits designed to match the cleaning requirements of each printer.

Products
- Pre-impregnated cleaning cards
- Pre-impregnated cleaning swabs
- Self-adhesive card cleaning rollers

How Often Should I Clean My Printer ?

Your printer should be cleaned every 1000 cards or at every ribbon change (whichever is sooner) when printing onto normal cards. The printer will prompt you to do so at every 1000 cards by either a flashing LED. When printing onto self adhesive cards we would recommend that you clean the printer twice as often.

The cleaning process should include the replacement of the self-adhesive cleaning roller which is designed to keep the cards free from dirt and dust, cleaning of the printhead using an cleaning swab and finally clean the card paths and rollers using at least one cleaning card. Both the swabs and cleaning cards are pre-impregnated with cleaning fluid for ease of use.

Accessories

We offer a selection of add-on extras for your card production system. These include photo and signature capture solutions to quickly and easily input card holder's details into our software for card production.

We also offer a range of Smart Card encoding modules to enable the printer to be used to encode both contact and contactless cards. Our highly experienced Sales and Technical teams can also assist you in the selection and supply of any other related equipment that you may require.

Bioscrypt V-Smart and V-Pass

The Bioscrypt V-Pass & V-Smart are practical and affordable fingerprint scanners for use in conjunction with CardCreator Elite.

The V-Pass is ideal for the initial capture of the fingerprint which can be recorded into the database and/or onto a proximity card which can be used for double verification of the holder.

The V-Smart features an integrated Mifare or HID Prox reader and is ideal for fingerprint scanning and verification against the card.

If verification against the card is not required the V-Pass can be used on it's own at the point of access. Both readers feature an RS232C or RS485 interface and are available with an optional waterproofing kit for external use.

Features Include:
- Standalone Fingerprint Scanner
- Supports HID & Mifare Cards
  (V-Smart Only)
- Unlimited Users
- Compact Design
- Unlimited users
- Multi Colour LED's & Tone Signal

Options:
Bioscrypt V - Pass fingerprint scanner with RS232C interface
Bioscrypt V - Smart fingerprint scanner with intergrated Mifare reader & RS232C interface
Bioscrypt V - Smart fingerprint scanner with intergrated HiD iClass reader & RS232C interface

Options:
- Waterproof Cover

Smart Card Encoding Solutions

More and more applications are moving away from more traditional barcoded or magnetic stripe cards, and so with this in mind, DED has introduced a range of contact (Smart Card) and contactless (Proximity) encoding modules for the Zebra, CIM & NBS range of plastic card printers.

The kit allows a card to be passed through the printer and read/encoded and printed in one single, simple operation. Even combinations of two or more chip technologies in a single printer can be catered for.

Software integration is simple as both demonstration software and dll files are supplied with each kit. For even greater ease of use the Mifare & HID kits are supported by our CardFive Elite and CardExchange softwares. Elite manages the complete setup of the card, PIN numbers, data positioning and encoding process making it incredibly simple to setup and use.

All kits are supplied with full fitting instructions making them simple to integrate into any existing printer. Data cable, demonstration software, dll files and programming codes are also supplied as part of the kit. Alternatively, DED can supply the printer with the kit already fitted.

For even greater flexibility, the new D310/D420 large capacity card feeder kit from DED can be used in conjunction with the encoder kits.

The kits are suitable for use with the following printers:

Zebra P310i, P320i, P330i, P420i, P520i, P720.
NBS J310, J420.
CIM K310, K420.

The kits available are available to suit most standard card types, however if you have a specific request, please contact us to discuss your requirements:

Internal Smart Card Encoder Kit
- Gemplus GCI400 (T=0, T=1)

Internal Smart Card Encoder Kit
- Gemplus GCI400 (PCSC)

Internal Smart Card Encoder Kit
- Orga Cream 130

Internal Smart Card Encoder Kit
- Towitoko

Internal Proximity Card Encoder Kit
- Mifare GCI680

Internal Proximity Card Encoder Kit
– HID Prox (READ ONLY)

Internal Proximity Card Encoder Kit
- I-Code OBID

Internal Proximity Card Encoder Kit
- Legic PHG/MIMIU-S

Internal Proximity Card Encoder Kit
- Hitag Feig ID RW01.

Internal Smart Card/Proximity Card Encoder Kit
- GCI410/Mifare GCI680

Technical Specification

Contactless Cards (Proximity Cards)

MIFARE Upgrade Kit
* GCI-680 Mifare Controller PCB
* RF-13.56MHz Antenna unit

HITAG Upgrade Kit
* OBID HITAG Controller PCB
* RF-125KHz Antenna unit

LEGIC Upgrade Kit
* MIMIU-S LEGIC Controller PCB
* RF-13.56KHz Antenna unit

I-CODE Upgrade Kit
* I-Code Controller PCB
* RF-13.56KHz Antenna unit

Contact Cards (Memory & Processor)

Smart Card Upgrade Kit
* GCI-410 Smart Card Controller PCB (alternatively Towitoko and Siemens B1)
* I/F PCB with RS232C Interface
* Contact Assembly unit

Contactless Cards (Read Only)

HID Prox
* HID Prox Controller PCB
* RF-125KHz Antenna Unit

ID Accessories

Choosing the correct badge holder for your cards is as important as choosing the best card or printer.

Holders, chains, lanyards and clips are available in a wide variety of sizes to suit many different applications. Ranging from a simple vinyl holder with safety pin for a paper pass, to a PVC enclosed card holder for multiple cards with a safety break-away lanyard. DED offers one of the most comprehensive ranges available. For full details, please contact the Sales Department for a copy of our "ID Accessories" catalogue.

Clips and Pins

The most simple way to display a badge or ID card is to use one of the many clips available in this range. We offer a selection of self-adhesive safety pins and crocodile clips in both plastic and metal, which simply stick to the rear of the card offering a very low-cost solution which is ideal for visitor badges.

A more heavy duty fixing is available in the form of the strap clip range which fit through the slot in the card or card holder. These are available with either a crocodile clip or a more secure locking clip style, mounted on straps with plastic or metal studs. The straps themselves are available in many different colours to match the individual card, holder or even corporate style.

Products
- Plastic or metal self-adhesive clips/pins
- Crocodile clip type strap clips
- Locking clip type strap clips
- Variety of styles & colours

Badge Holders

Badge holders are available in two main types. Flexible vinyl holders are available in a wide variety of sizes and with slots or holes to suit most clips, lanyards or chains. The back, frame or top bar can be clear or coloured. These are most suitable for temporary visitor badges and are not designed for heavy day-to-day use.

The rigid PVC/ABS range of holders are available to suit CR80 size plastic cards in a variety of thicknesses and even for multiple cards. Both portrait and landscape versions, in a wide variety of colours, can be supplied.

A number of specialist holders, such as secure enclosed holders from which the card cannot be removed without breaking it, to rotating clip holders which have a built-in clip which can be used in either landscape or portrait format are available. Rigid holders are very durable and can be used in the most rigorous of environments.

Products
- Flexible vinyl badge holders
- Rigid PVC/ABS badge holders
- Variety of styles & colours
- Range of specialist holders

Lanyards and Chains

The range of neck chains from DED are manufactured from plastic or nickel plated steel in a variety of lengths from 30" to 38" and finished in a range of colours. They are an ideal and low-cost way of displaying a badge around the neck.

A more professional-looking and comfortable option is a woven nylon lanyard. These are also available in a variety of lengths and colours but have the added benefit of being available in a variety of widths and with different attachments - from a simple clip to a keyring or whistle.

Lanyards can even be custom printed with a corporate logo, slogan, department or message using a variety of different techniques, depending on the finish required and budget. For total safety a "break-away" attachment is available which quickly separates should the lanyard become caught - a must for wearers who operate machinery.

Products
- Plastic or nickel plated steel chains
- Round or flat lanyards
- Variety of styles & colours
- Lanyard custom printing option
- Safety "break-away" attachment option
- Lanyard length adjuster option

Badge Reels

Badge reels are an ideal way of keeping a swipe card secure whilst still allowing easy access to it when required. The badge reels range from an all-plastic item designed for low usage applications to chrome plated metal reels for very heavy duty use.

The most popular range is the standard round clip or pin-on reel which is available in a variety of colours and with a range of different fixings for the card. A push button version is available which, when used, stays extended until the user presses the button. A square version of the reel is also available.

Reels can even be custom printed with a corporate logo, slogan or message in both the centre of the reel and around the outer rim.

Products
- Plastic or metal badge reels
- Round or square styles
- Variety of styles & colours
- Push-button self-locking version
- Custom printing option

Luggage Accessories

An ideal use for plastic cards is for the tagging and identification of luggage. There are two different tag styles available, a simple vinyl holder designed for use with a rubber loop strap or a coloured rigid PVC holder with matching plastic lock strap.

Alternatively, we can offer a range of leather straps with either steel or brass buckles in a variety of lengths and widths which can be inserted directly through a slot punched in the card.

Products
- Black or white Vinyl tag with rubber loop strap
- Coloured PVC tag with matching strap
- Leather strap with brass or steel buckle
- Variety of styles & colours

Card Tools

We offer a comprehensive range of tools to assist in the manufacture of ID cards. The first is a hand-held hole punch which allows you to cut a 5mm diameter hole for a keyring or chain, plus we offer a range of slot punches designed for cutting a 3 x 12.5mm slot for a lanyard or clip. These are available as hand-held items with or without a card guide and are ideal for occasional use.

For larger volume users we offer a manual or motorised desk-top punch with guide which makes production of large volumes of cards very simple.

Finally, we offer the "Accu-Guide" card alignment tool which allows you to quickly and easily align and mount self-adhesive cards onto any kind of proximity card. This allows the proximity card to be reused by removing and replacing the self-adhesive card and reprogramming the Smart chip.

Products
- Hand-held 5mm hole punch
- Hand-held 3 x 12.5mm slot punch with or without guide
- Desktop manual or motorised 3 x 12.5mm slot punch
- "Accu-Guide" self-adhesive card alignment tool

Badge Racks

An effective and convenient way to display and store plastic ID cards.

We offer two different racks to display the cards - either portrait or landscape. Both racks are made from metal and are capable of holding up to 40 cards each.

Products
- All metal construction with mounting holes
- Portrait or landscape versions
- Holds up to 40 cards

Custom Printing

To further enhance your badge reels and lanyards, we offer a custom printing service.

The centre of badge reels can be printed in any Pantone PMS colour or 4 colour process. The rim of the reel can also be printed in any Pantone PMS colour. For a more professional finish and added durability the centre can be covered in a clear epoxy "dome".

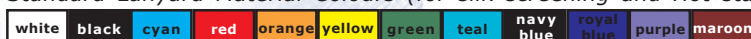*Without epoxy dome*   *With epoxy dome*

Lanyards can be customised using a number of different processes.

Dye Sublimation - Ideal for detailed logos or artwork using any Pantone PMS colour. Up to 5 colours onto any colour lanyard or 6 colours onto a white lanyard. Minimum Order Qty 500 pcs.

Silk Screening - Ideal for simple text and logos using any 1 Pantone PMS colour onto the standard lanyard material. Minimum Order Qty 250 pcs.

Hot Stamping - Low cost solution ideal for small quantities and best suited to straight text. Up to 2 colours (choice of black, blue, green, purple, yellow, red or white) can be printed onto the standard lanyard material. Minimum Order Qty 100 pcs.

Standard Lanyard Material Colours (for silk screening and Hot stamping

| white | black | cyan | red | orange | yellow | green | teal | navy blue | royal blue | purple | maroon |